

STATEMENT OF WORK
Automatic systems for the CAC's exterior
sliding gates
PROPERTY OBO-293
Presidential Villas
USA EMBASSY KHARTOUM, SUDAN

1. Description of Services: Description of Services:

The US Embassy, Khartoum has a requirement to furnish and install three gates' automated operating systems for the three exterior gates of the MCAC and the SCAC in the newly leased residential compound, known as OBO # 293 in Shatti neighborhood, Khartoum. The works shall be done as per drawings, scope of work, specifications and General contract conditions. This project requires an experienced contractor to execute the job.

The Contractor shall provide all labor, material tools, equipment, supervision and other related items required to the complete the project as per scope of work, specifications and attached drawings.

The Contractor shall coordinate with the Facility Management team for optimization of efficiency in keeping perimeter controlled during installation of access control fence, gates, and enclosures. All work shall be performed in accordance with the Scope of Work, provided drawings, basic contract technical specifications, Uniform Building Code, and all security regulations.

The contractor is responsible for the protection of existing structures, utilities, work and vegetation. Workers shall stay within the site area. Any damage shall be repaired at the contractors' expense.

Contractors are advised to visit the site, verify the existing site conditions to develop their proposal.

2. SUBMITTALS

2.1. Shop drawings: Submit drawings showing connections to adjacent construction, range of travel, and all electrical and mechanical connections to the operator. Drawings shall also show the size and location of the concrete mounting pad. Underground electrical runs and inductive vehicle obstruction loop locations shall be shown on shop drawings.

B. Installation instructions: Submit two copies of manufacturer's installation instructions for this specific project.

2.2. Product Data:

2.2.1. Catalog sheets, specifications and installation instructions.

2.2.2. Detailed sequence of operations. (Description of System).

3. QUALITY ASSURANCE

A. Manufacturer: A company specializing in the manufacture of hydraulic gate operators of the type specified, with a minimum of ten years experience.

B. Installer: A minimum of three years experience installing similar equipment

3. Scope of Work

1- The contractor shall furnish and erect three sliding gate operator system(s) to allow motorized operation of the gate(s) by using fixed and remote control switches

- The system Operation shall be by means of a metal rail passing between four hydraulically driven solid metal wheels with polyurethane treads. Operator motors shall be hydraulic, geroller type, and system shall not include belts, gears, pulleys, roller chains or sprockets to transfer power from operator to gate panel. The operator shall generate a minimum horizontal pull of 1200 pounds (544 kg) without the drive wheels slipping and without distortion of supporting arms. Operator shall be capable of handling gates weighing up to (3000 kg). Gate panel velocity shall not be less than 1.0 foot (.30 m) per second and shall be stopped gradually to prevent shock loads to the gate and operator assembly.

- **In the MCAC two gates**, the work shall include but not limited to the following:-

- The operating system shall be placed outside the middle column support.
- All the electrical wiring, conduits shall be furnished, installed by the contractor in accordance with the manufacturer's recommendation and shall be buried below the ground. The location of the operator shall be as shown in the attached drawing.
- The motor shall be remotely controlled from the gate by using remote control. The range of the remote shall be at least 30 meters
 - The existing steel gate size is 5.3 X 2.7 meters. The frame is made of 10 X 5 cm, 6 mm thick. The vertical steel bars are 20 mm thick at 15 cm spacings. The weight of the door is around 2.5 Tons
- The project requires modifying the hinges and frames of the two side doors (1 X 2.1 m) inside the CAC, so as not to interfere with the new location of the operating machine
- As a part of the project, the contractor shall adjust the alignment of the gates and its rollers to allow the easy use of the gate **electromechanically and manually**

In the SCAC (one gate), the work shall include s but not limited to the following:-

- The operating system shall be placed inside the middle column. No extension of the gate frame shall be needed
- All the electrical wiring, conduits - All the electrical wiring, conduits shall be furnished installed by the contractor in accordance with the manufacturer's recommendation and shall be buried below the ground. The location of the operator shall be as shown in the attached drawing.
- The motor shall be remotely controlled from the gate by using remote control. The range of the remote shall be at least 30 meters
- The gate size is 6.0 X 2.7 meters. The frame is made of 10 X 5 cm, 6 mm thick. The vertical steel bars are 20 mm thick at 15 cm spacings. The weight of the door is around 2.5 Tons
- As a part of the project, the contractor shall adjust the alignment of the gates and its rollers to allow the easy use of the gate **electromechanically and manually**

Gate Operators: shall be of high quality Model SlideDriver 80, by Hy-Security Gate Operators., Alternate gate operator manufacturers approved but subject to specification compliance Stanley Door or International Controls and Equipment Co. Systems Operator shall have the following options:

- Insulated and weather-stripped operator covers.
- Remote gate release devices.

2- Main Functions and system operations

1. Pressing the OPEN button opens the gate.
2. Pressing the CLOSE button closes the gate.
3. A green indicating light illuminates when the gate is completely closed and locked. A red indicating light illuminates under all other conditions.
4. A stop pushbutton allows the gate to be stopped in any position.
5. Gate movement may be resumed in either direction by pushing the appropriate Push button.
6. Gate movement may be reversed in either direction by pushing the appropriate Push button. The control system automatically stops the gate, pauses (adjustable time delay to avoid mechanical damage), then causes the gate to travel in the opposite direction.
7. Gate movement not less than 1 ft per second.

3. Requirements:

- The contractor shall use direct drive technology as the operating force. The direct drive system shall not use a chain as a means of transferring the drive force to the gate.
- All electrical and electronic components shall conform to U.L. standards and be listed with a Nationally Recognized Testing Laboratory.
- All metallic components shall be of stainless steel, powder coated / anodized aluminum or corrosion protected steel. All fasteners shall be produced out of stainless steel, aluminum or have zinc plating.
- The controller enclosure shall comply with NEMA Type 3R, 4, and 12
- The operator shall interface with all standard access control devices.
- The operator shall interface and operate with entrapment and safety devices in accordance to U.L. 325.
- The slide gate which the operator will be installed on shall be reasonably level and in acceptable operating condition.
- The operator electrical supply standard shall be 220/240VAC, single or 3 phase 50Hz.
- All electrical supply shall be installed in accordance with the National Electrical Code (N.E.C.), US local codes
- The direct drive operator shall have a normal ambient operating temperature range of 00F / +1200F
- The operator shall be installed in accordance with the manufacturer's installation instructions.

4. Field Quality Control

The contractor shall perform the following with the prior approval of the COR.

4.1. Preliminary System Test:

Preparation: Adjust the completed system and then operate it long enough to assure that it is performing properly.

4.2. System Acceptance Test:

4.2.1 Preparation: Notify the COR at least two working days prior to the Test so arrangement can be made to have an embassy Representative witness the Test.

4.2.2 Test each system function step by step

4.2.3 Supply all equipment necessary for system adjustment and testing.

5. The Contractor shall be responsible to carry out all the works to that is required to restore the disturbed area to its original texture and color, this includes but not limited to plastering, painting, touch up painting, sanding, tiling, etc...

6. The contractor shall maintain existing utilities indicated to remain and protect them against damage during the project. Damages caused by works, shall be repaired by the contractor at no additional cost to the Government.

7. the contractor shall transport from site all debris, rubbish, and materials resulting from operations and dispose off site on a daily basis in accordance with local regulations.

Conditions of Contract

1. General

This is a firm fixed price turnkey job for the entire work and amount quoted shall include all work described in attached drawing, scope of work and general condition of contract. The lump sum price quoted shall be fixed and nothing extra will be entertained on any account.

Contractor's staff is subject to such restriction for entry and exit as are required by the Embassy's security requirement. Contractor's staff will be subject to security cleared as required by the Embassy.

Contractor shall restore all surfaces disturbed by construction to match with existing finish.

Any deviation from the original contract/scope of work shall be informed to COR before work begins. No additional work or changes will be carried out without a contract modification.

2. Responsibilities of Contractor

Contractor shall be responsible for procuring, supplying, transporting, and providing all labor, materials, tools and plant and equipment etc., required for completion of the work in all respects and as per the scope of the work.

All expenses towards mobilization at site and demobilization including bringing in equipment, workforce and materials, dismantling the equipment, clearing the site etc. shall be deemed to be included in the rates quoted by the contractor against various items of schedule of rates and no separate payment on such expenses shall be entertained.

Contractor shall employ and provide one full time engineer to supervise the project and has experienced of carrying out such type of work.

Contractor shall not proceed with next activity until previous activity will be checked and approved by COR. Contractor shall mentioned all inspection dates in the schedule chart

Contractor should keep the site clean and accessible to Embassy employee all time

3. Specifications

Work under this contract shall be carried out strictly in accordance with specifications attached and will meet US and Local codes.

4. Execution of Work

The Contractors are advised to review the material specifications and scope of work. The Contractor should visit and walk through the site to familiarize themselves with the site conditions to understand the exact quantum of work.

On award of the work, Contractor shall submit all items below via email:

- a. Bar chart within 3 days for approval by the Contracting Officer Representative (COR). All dates and time schedule agreed upon should be strictly adhered to. Contractor shall notify the COR in advance regarding anticipated problems through the project.
- b. Proposed start date
- c. Weekly schedule/activity plan for the duration of the project prior to the start date.

For dismantling/blocking or making connection to any existing services or any shut-down, contractor shall inform the COR at least three working days in advance and proceed with the work only after the permission from the COR.

The duration of the project shall be 20 working days.

5. Materials

All materials used on this work shall be new and conforming to the contract specifications as per US and local codes.

Materials shall conform to the latest US Standards specifications as amended to date and carry certification mark. Contractor shall submit material samples and catalog for pre-approval.

All materials used on the project shall be approved by the Contracting Officer Representative (COR) before use. Any changes/substitutes on material shall be approved by COR before proceeding.

6. Storage of Materials

All materials shall be stored in a proper manner protected from natural elements so as to avoid contamination and deterioration.

7. Site Clearance and Cleanup

The Contractor shall clear away all debris and excess materials accumulated at the site and dispose of it away from Embassy premises, maintaining a neat site condition.

On completion of project, Contractor shall remove all surplus materials and leave the site in a broom clean condition.

8. Workmanship

Workers working on the site shall be skilled in their job and have related job experience.

9. Working Hours

Working hours shall be 8:30 A.M. to 4:30 P.M. Sunday to Thursday. No work shall be done on Fridays, Saturdays and holidays without the prior approval of the Contracting Officer.

10. Security Clearance

The Contractor shall inform and provide in writing transportation details (vehicle registration number, drivers name, and date of delivery) to the COR at least 24 hours in advance for material deliveries.

Contractor shall give workers names at least 3 days in advance to get the security clearance. All the workers shall have an official photo ID or photo ID with the company name on it.

11. Safety

Contractor is responsible and shall continue management and implementation of a safety and health program throughout construction.

The Contracting Officer and the Post Occupational Safety and Health Officer [POSHO] reserve the right to suspend work when and where Contractor's safety and health program is considered to be operating in an inadequate or non-complying manner.

Contractor shall provide all Personal Protective Equipment for the workers as per the requirement of the site. Work will be stopped in case the proper protection equipment is not found with the workers and the lapse of time shall be at the Contractor's expense.

Contractor will not leave the work site in an unsafe condition or any other condition that might cause injury to personnel, damage to existing work, plants or equipment.

Contractor will use all safety gadgets e.g. hard hats, cotton gloves and goggles as required on site to avoid the accident.

Any equipment or work considered dangerous shall be immediately discontinued.

11. Warranty

The contractor shall guarantee that all work performed will be free from all defects in workmanship and materials and that all installation will provide the capacities and characteristics specified. The contract further guarantees that if, during a period of three years from the date of the certificate of completion and acceptance of the work, any such defects will be repaired by the contractor at his expenses.